

**ASSESSMENT OF SATISFACTION LEVEL OF INDOOR PATIENTS OF  
GOVERNMENT AND PRIVATE TEACHING INSTITUTIONS: A QUESTIONNAIRE  
BASED CROSS-SECTIONAL STUDY****Sudeshna Chatterjee\*<sup>1</sup>, Krishnangshu Ray<sup>2</sup>, Arunava Biswas<sup>3</sup> and Arcojit Ghosh<sup>4</sup>**<sup>1</sup>Deputy Registrar, Academic, Netaji Subash Open University, DD-26, Sector I, Salt Lake, Kolkata, West Bengal, India, PIN-700064.<sup>2</sup>Director, Institute of Health and Family Welfare, GN-29, Sector-V, Salt Lake, Kolkata, West Bengal, India, PIN-700091.<sup>3</sup>Asst. Prof., Dept. of Pharmacology, Calcutta National Medical College, 32 Gorachand Road, Kolkata, West Bengal, India, PIN-700014.<sup>4</sup>Sr. Resident, Dept. of Anaesthesiology, K. P. C. Medical College, 1F Raja S. C. Mullick Road, Jadavpur, Kolkata, India, PIN 700032.**\*Corresponding Author: Sudeshna Chatterjee**

Deputy Registrar, Academic, Netaji Subash Open University, DD-26, Sector I, Salt Lake, Kolkata, West Bengal, India, PIN-700064.

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**ABSTRACT**

Patients satisfaction is an important component of the healthcare delivery system. Patients satisfaction survey is an useful measure in gaining and understanding of the users' needs and their perception of the services they receive. The study aimed towards assessing the levels of satisfaction upon Indoor Patients (n=200) in terms of five (5) underlying critical issues. A set of pre-structured and validated questionnaire was used as a tool to obtain the primary data. Multiple demographic factors were independent variables whereas five critical areas of satisfaction indices were the outcome variables. Subjects were interviewed by using twenty (20) item Likert Response Based Scale. Satisfaction indices were calculated by using standard criteria. Satisfaction Index (SI) of patients remained higher ( $P<0.0001$ ) in private institutions while compared to that of government institutions. Factors like cost of healthcare, basic amenities, information and support systems and organization care also remained higher ( $P<0.0001$ ) in private institution than in the government institution. The study concludes that a user-friendly questionnaire survey could identify the intrinsic and extrinsic factors affecting the satisfaction levels. Necessary intervention measures might bridge the gap so as to enhance the quality of care.

**KEYWORDS:** Satisfaction Index, Patient Care, Cross-sectional Study, Teaching Institutions.**INTRODUCTION**

The healthcare scenario is undergoing a rapid transformation to meet the ever increasing needs and demands of the patient population. Patients satisfaction (PS) is one of the established yardsticks to measure success of the services being provided by the hospitals.<sup>[1]</sup> They had also concluded that a patient is the ultimate consumer of hospital services and expects comforts care and cure. Improved socio-economic status and easy access to medical care are reported to have been led to high expectations and demands of consumers of hospital services.<sup>[2]</sup> Human satisfaction is a complex concept that is related to a number of factors including life style, past experiences, future expectations and the value of both individual and society.<sup>[3]</sup> Patient satisfaction has been defined as degree of congruency between a patient's expectations of ideal care and his/her perception of care he/she receives.<sup>[4]</sup> It denotes the extent to which general healthcare needs of the clients are met to their

expectations.<sup>[5,6]</sup> These multidimensional aspects represent a vital marker for the quality of health care delivery which is internationally accepted.<sup>[7]</sup>

Kulkarni et al.<sup>[8]</sup> has reported that the improvement in services offered by a hospital depends upon behavior of the hospital staff, improved cleanliness and sufficient quantity of water supplied throughout the seasons. They had designed a scoring system to estimate the level of satisfaction with a minimum score of one (1) and a maximum score of ten (10) and that has classified the satisfaction into three (3) levels, poor, average and satisfactory. However, Arstad et al. in 2012<sup>[9]</sup> had recommended scoring in the following manners (i) introducing a more simple method of hospital registration (ii)improvement in the amenities like water supply and toilets (iii) adherence to strict time schedule by doctors and nursing staff and (iv)efforts for reducing patient overload to ensure better attention.

Singh et al<sup>[10]</sup> has reported that patient satisfaction depends upon clinical services, availability of medicines, behavior of care givers, cost of services, hospital infrastructure, physical and emotional supports and respect for the patient's preferences. Still in developing countries the patients perception about healthcare system seem to have been largely ignored by the healthcare managers.<sup>[11]</sup> There is a paucity of Indian data for measuring satisfaction of patients in tertiary care teaching hospitals which has prompted to carry out the evaluation of hospital services based on feedbacks obtained from indoor patients representing from hospitals governed by private and government administrations.

The objectives of the present study were to estimate the level of satisfaction of indoor patients (n=200) admitted to KPC Medical college (KPCMC), a private and RG Kar Medical College (RGKMC), a government institution. It was followed by a comparison of 'satisfaction levels' between two hospitals. The study also intended to ascertain various critical factors affecting the level of satisfaction. Satisfaction indices (SI) were calculated from all subjects in relation to several outcome objectives. It is possible that the outcome of the study may be an important eye-opener to respective authorities towards planning the future growth, promoting organizational culture and enhancing the quality of care.

## MATERIAL AND METHODS

### Subjects

Indoor patients (n=200) admitted in various broad clinical departments of both the teaching institutions had participated in the study. All participants were of either sex with their age ranging between 18-60 years. All were clinically stable and alert enough to communicate with the researcher. Only willing subjects were included in the study. The literacy status of all subjects ranged from illiterate to graduate levels.

### Questionnaire Tools

A self-administered, comprehensive, customized and close ended and validated questionnaire (n=20) were used to generate the primary data. All questions were equally distributed in five (5) domains, (i) cost of health care(CHC) (ii) basic amenities of the hospital (BA) (iii) infrastructure and support systems (ISS)(iv) organization and care(O&C) and (v) doctor- patient relationship (DPR). The tools of measurement were related to satisfaction indices. It was ensured that all participants understood the objective of the study and the medium of communication was Bengali.

### Data Collection

Primary data were obtained through face to face interview method. Average time required for data collection from any particular patient was about 20 minutes. All data were anonymous and all responses were collected in closed boxes which were opened only

at the time of analysis. The numerical values were converted into computer generated spread-sheets. The study was prior approved by the Institution Ethics Committees (IEC) of respective institutions.

### Calculation

Response to each question was devised by using five-point Likert Scale and the level of satisfaction ranged between low to very high.<sup>[12]</sup> The responses were further converted to Normal Scale for the ease of statistical calculation. The scores of jobs Satisfaction Indices were calculated by using standard methods.<sup>[13]</sup>

$$\text{Satisfaction Index} = \frac{\text{Total obtained score for a respondent}}{5 \times \text{Total number of questions}}$$

### Statistical Analysis

Descriptive Statistics like Students 't' test was applied for the test of significance by using the software available in www.vassarstats.net by using the graph pad version 7. P values less than 0.05 were accepted as statistically significant.

## RESULT

### Socio personal profile: [Table 1 to 5 and Fig. 1 - 5]

A total number of 200 patients of both sexes admitted in both private and public tertiary care hospitals had responded in the present study. The ages of all the respondents ranged between 18-60 years, out of which the public sector(RGKMC) respondents were aged between 18-21 years (5%) in comparison to private sector (KPCMC) which was 4%. Conversely the higher age limit (>50) was observed more in KPCMC (41%) than that of RGKMC (17%). Gender- wise KPCMC was represented by 63% male in comparison to RGKMC which was 53%. In terms of literacy status respondents from RGKMC had received secondary education (47%) whereas respondents from KPCMC were mostly graduates (38%).

Regarding socio economic status respondents from RGKMC (84%) had a monthly income less than Rs. 10,000/- while compared to that of KPCMC (55%). Respondents with income level more than Rs. 100,000 were more (4%) in KPCMC which was marginally higher than that of RGKMC (2%). Occupation wise 49% respondents from RGKMC were from working class compared to 45% in case of KPCMC. In RGKMC 40% of the respondents were housewives while in KPCMC it was 42%.

**Table 1: Age of Patients.**

Age Range of patients	RGKMC (n=100)	KPCMC (n=100)
< 20	5%	4%
21-30	16%	7%
31-40	38%	13%
41-50	24%	35%

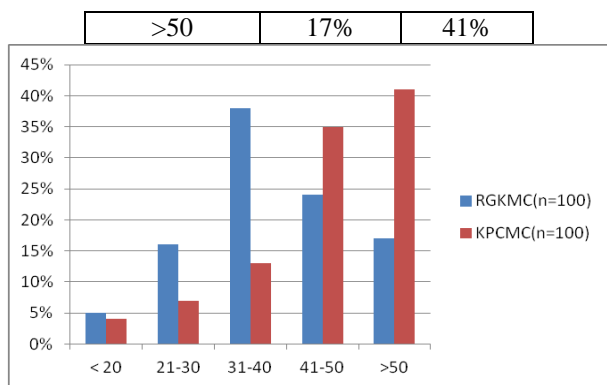


Fig. 1: Age of Patients.

Table 2: Gender of Patients.

Gender of patients	RGKMC (n=100)	KPCMC (n=100)
Male	53%	63%
Female	47%	37%
Transgender	0%	0%

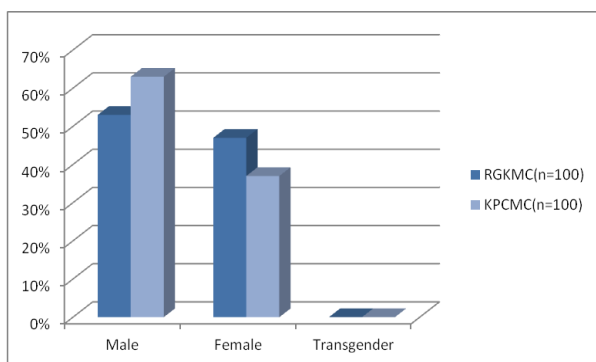


Fig. 2: Gender of Patients.

Table 3: Academic background of Patients.

Academic Background	RGKMC (n=100)	KPCMC (n=100)
Illiterate	16%	5%
Primary	27%	16%
Secondary	47%	41%
Graduate	10%	38%

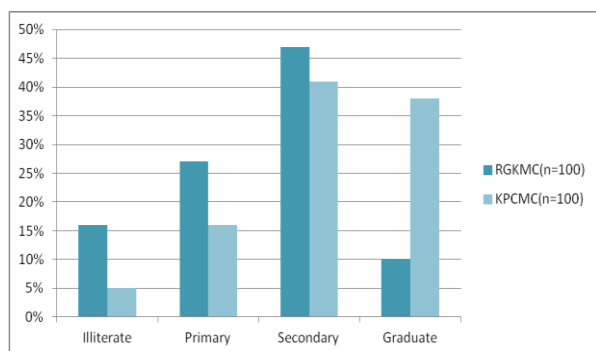


Fig. 3: Academic background of Patients.

Table 4: Occupation of Patients.

Occupation	RGKMC (n=100)	KPCMC (n=100)
Working Class	49%	45%
Student	7%	6%
House wife	40%	42%
Retired	4%	7%

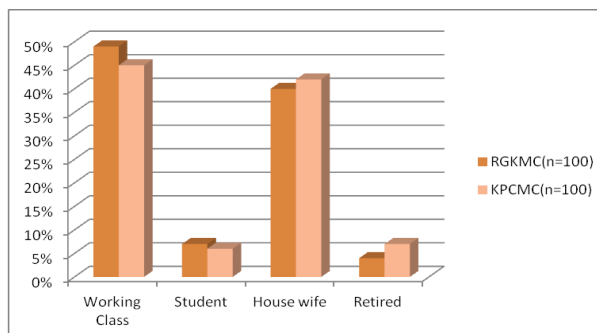


Fig. 4: Occupation background of Patients.

Table 5: Socio Economic Status (monthly income) of Patients.

Socio Economic Status (monthly income)	RGKMC (n=100)	KPCMC (n=100)
Class I (1,00,000)	2%	4%
ClassII (51,000 to 1,00,000)	0%	5%
Class III (21,000 to 50,000)	5%	25%
Class IV (10,000 to 20,000)	9%	11%
Class V (< 10,000)	84%	55%

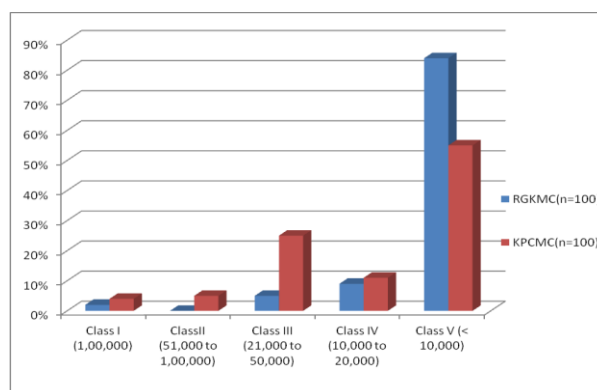


Fig. 5: Socio Economic Status (monthly income) of Patients.

**Satisfaction level: [Table-6]**

The level of satisfaction of all respondents was calculated in terms of Satisfaction Index(SI) and the higher score indicated the greater satisfaction level. Satisfaction level in totality remained higher ( $0.42 \pm 0.005$ ) in KPCMC than that of RGKMC ( $0.098 \pm 0.0045$ ) which was statistically significant ( $P < 0.0001$ ). Regarding the satisfaction level in different sectors, respondents from RGKMC had spent lesser on health care ( $0.09 \pm 0.009$ ) than that of KPCMC ( $0.12 \pm 0.01$ ) which was statistically significant ( $P < 0.05$ ).The

availability of basic amenities were more in KPCMC ( $0.15 \pm 0.007$ ) than that of RGKMC ( $0.084 \pm 0.009$ ) which was statistically significant ( $P < 0.0001$ ). Respondents from KPCMC had received higher level of information as well as support system ( $0.165 \pm 0.005$ ) in comparison to RGKMC ( $0.118 \pm 0.009$ ) which was statistically significant ( $P < 0.0001$ ). The organization and

care aspects were calculated to have been higher in KPCMC ( $0.147 \pm 0.001$ ) than that of RGKMC ( $0.06 \pm 0.008$ ) which was also statistically significant ( $P < 0.0001$ ). While calculating the SI in relation to Doctor-patient relationship, the values remained almost similar without having any significant differences.

**Table 6: Comparative values of Patient's SI from Private and Government Hospitals**

	<b>KPCMC (Mean<math>\pm</math>1.96SEM)</b>	<b>RGKMC (Mean<math>\pm</math>1.96SEM)</b>	<b>P Value</b>
SI of CHC	$0.12 \pm 0.01$	$0.09 \pm 0.009$	0.001
SI of BA	$0.15 \pm 0.007$	$0.084 \pm 0.009$	<0.0001
SI of ISS	$0.165 \pm 0.005$	$0.118 \pm 0.009$	<0.0001
SI of O & C	$0.147 \pm 0.01$	$0.06 \pm 0.008$	<0.0001
SI of DPR	$0.122 \pm 0.008$	$0.127 \pm 0.008$	0.35
Total SI	$0.142 \pm 0.005$	$0.098 \pm 0.005$	<0.0001

## DISCUSSION

Quality of care is one of the central dimensions of public health. It is measurable into structure, process and outcome by both quantitative and qualitative methods.<sup>[14]</sup> Mishra & Mishra<sup>[15]</sup> had described that to establish an overall patients satisfaction the usual goals are (i) measuring patient satisfaction (ii) monitoring changes in satisfaction (iii) measuring performances or service characteristics and (iv) monitoring changes in performance. The present study had attempted to conduct a baseline survey of patients satisfaction to gain an understanding of users' needs and perception of the service received. De Brun *et al.*<sup>[16]</sup> had reported that similar data were useful to respective health authorities to undertake intervention studies.

Estimation of patient satisfaction has got multiple purposes, but there are five (5) patient related critical factors which need to be studied. Such interviews helped to evaluate healthcare services from the patients point of view to facilitate the identification of problem areas and generation of ideas to resolve those issues. In spite of pretty good level of patient satisfaction, a small, but by no means insignificant, proportion of patients expressed dissatisfaction. Dissatisfaction expressed by the patients indicates that hospital authority needs to be more vigilant in enhancing the care services. Jawahar<sup>[17]</sup> had reported that poor patient satisfaction may lead to poor adherence to therapy with consequently poor health outcomes.

In the present study, the patients were satisfied in totality regarding the hospital services as evidenced by the Satisfaction Index values. However, the degree of satisfaction appeared to be higher in the private sector. This is in agreement with several reports available from India and abroad.<sup>[18,19,20,4]</sup> Kumari *et al.*<sup>[21]</sup> had observed that the availability of basic amenities like drinking water and toilet conditions were the reasons of poor satisfaction of the patients.

In our study, the cost of health care including medicines, hospital user's fee, attendant's remuneration and cost of

investigations remained relatively less in public sector which is a non-commercial organization. Basic amenities including diet and overall cleanliness of toilets, linens and wards were better organized in private sector which might be explained in terms of less crowding of patients and better availability of human resources. The overcrowding of government hospitals may have been caused due to unnecessary referrals, poor bed turnover and no-refusal on public interest.

The respondents of the private hospital (KPCMC) were provided with appropriate information about the existing support systems of healthcare suggesting better organizational care imparted by the concerned hospital authority. In our study both these aspects were better in private sector which suggests good hospital management system and optimum supply of resources. However, the important aspects like doctor patient relationship remained unaltered between the two sectors which is a notable observation. The physician-patient relationship being the key stone of organizational care and satisfaction is influenced by the accessibility of clinical and administration personnel, their courtesy level, physician's competence, skill and goodwill.<sup>[22]</sup> The present study provides the opportunity for the health managers and policy makers about a better understanding of patients' views, perceptions and the extent of their involvement in improving the quality of care and services. We are in agreement with the concept of freezing old behaviors, introducing new ones and refreezing them for better healthcare.<sup>[23]</sup>

## CONCLUSION

The present qualitative study concludes that respective hospital authorities should take appropriate measures about the intrinsic and extrinsic factors affecting the level of satisfaction of the patients. Expression of dissatisfaction by the patients indicates that healthcare providers need to be more vigilant towards efficiency and other logistics in healthcare delivery. The study has also attempted to develop and standardize a user-friendly simple tool by identifying five (5) critical areas which

are strongly related with better hospital care. Adequate support of basic amenities and ensuring optimum environmental milieu in hospital premises could enhance the level of satisfaction of the hospital users. The present study had reflected the responses of patients only from urban population where the socio-personal profiles may be different from the rural setting. However, the concept of satisfaction from average services and dissatisfaction from the best ones needs to be substantiated by further studies upon individuals from different socio-demographic set-up. It is also recommended that necessary intervention measures might bridge the gaps to enhance the quality of care in hospital practice.

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